

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the applications:

Listing of Claims:

Claim 1 (currently amended): A wireless sensor probe comprising:
a probe body including a void configured to house a sensor mast, the probe
body to be inserted partially into the ground;
a first gasket positioned on the outside perimeter of the probe body whereby
the gasket can improves the stability of the probe body in the ground;
the sensor mast including one or more sensor devices for sensing a soil
property surrounding surrounding the probe body when the probe body is
inserted partially into the ground; and
a probe top part for encapsulating the probe body and the sensor mast,
wherein the sensor mast is inserted into the probe body to form the sensor probe.

Claim 2 (canceled). The wireless sensor probe of claim 1, wherein the probe body
further includes a gasket formed on the outside perimeter of the probe body for
securing the probe body in the ground when the probe body is inserted into the
ground.

Claim 3 (currently amended). The wireless sensor probe of claim 2, wherein the
gasket comprises a ring.

Claim 4 (currently amended). The wireless sensor probe of claim 2 1, wherein the gasket comprises an angular structure surrounding the outside perimeter of the probe body, the angular structure having a top portion facing the top of the probe body, a bottom portion facing the bottom of the probe body and a side portion having tapered width where the width decreases from the top portion to the bottom portion.

Claim 5 (currently amended). The wireless sensor probe of claim 1, wherein the sensor mast further comprises a second gasket on the outside perimeter of the sensor mast for anchoring the sensor mast to the inner perimeter of the probe body and for sealing the space between the sensor mast and the inner perimeter of the probe body.

Claim 6 (original). The wireless sensor probe of claim 1, further comprising:

a collar situated near a top portion of the probe body, the collar being used to anchor the probe body to the top of the ground when the probe body is inserted into the ground.

Claim 7 (original). The wireless sensor probe of claim 1, wherein the sensor mast further comprises a battery slot and a PC board for accommodating a processor.

Claim 8 (original). The wireless sensor probe of claim 1, wherein the probe top part comprises a transceiver circuit.

Claim 9 (original). The wireless sensor probe of claim 1, wherein the probe top part comprises a battery slot and a PC board for accommodating a transceiver circuit and a processor.

Claim 10 (original). The wireless sensor probe of claim 1, wherein the probe top part comprises a solar cell panel.

Claim 11 (original). The wireless sensor probe of claim 1, wherein the probe top part comprises an opening for housing a data display.

Claim 12 (original). The wireless sensor probe of claim 11, wherein the data display comprises one of an LED display or an LCD display.

Claim 13 (original). The wireless sensor probe of claim 1, wherein the probe body is configured in a round shape, a hexagon shape, a rectangular shape, a triangular shape, or a cross-beam shape.

Claim 14 (original). The wireless sensor probe of claim 1, wherein the probe body further comprises one or more raised structures protruding out of the probe body for housing the sensor device.

Claim 15 (withdrawn). A wireless sensor probe comprising: a housing containing one or more sensor devices, the housing to be inserted partially into the ground for sensing a soil property surrounding the housing; and a collar situated near a top portion of the housing, the collar being used to anchor the housing to the top of the ground when the housing is inserted into the ground.

Claim 16 (withdrawn). A wireless sensor probe comprising: a housing containing one or more sensor devices, the housing to be inserted partially into the ground for sensing a soil property surrounding the housing; and a gasket formed on the outside perimeter of the housing for securing the housing in the ground when the housing is inserted into the ground.

Claim 17 (withdrawn). The wireless sensor probe of claim 15, wherein the gasket comprises an angular structure surrounding the outside perimeter of the housing, the angular structure having a top portion facing the top of the housing, a bottom portion facing the bottom of the housing and a side portion having tapered width where the width decreases from the top portion to the bottom portion.

Claim 18 (withdrawn). The wireless sensor probe of claim 15, wherein the housing further comprises a battery slot and a PC board for accommodating a processor.

Claim 19 (withdrawn). The wireless sensor probe of claim 15, wherein the housing comprises a top portion for housing a transceiver circuit, the top portion remaining above the ground when the housing is inserted into the ground.

Claim 20 (withdrawn). The wireless sensor probe of claim 15, wherein the housing comprises a top portion for housing a solar cell panel.

Claim 21 (withdrawn). The wireless sensor probe of claim 15, wherein the housing is configured in a round shape, a hexagon shape, a rectangular shape, a triangular shape, or a cross-beam shape.

Claim 22 (withdrawn). The wireless sensor probe of claim 15, wherein the housing further comprises one or more raised structures protruding out of the housing for containing the sensor device.

Claim 23 (new): A wireless sensor probe comprising:
a probe body including a void configured to house a sensor mast, the probe body to be inserted partially into the ground;

a thin collar situated near a top portion of the probe body whereby the collar is used to anchor the probe body to the top of the ground when the probe body is inserted into the ground;

the sensor mast including one or more sensor devices for sensing a soil property surrounding the probe body when the probe body is inserted partially into the ground; and

a probe top part for encapsulating the probe body and the sensor mast, wherein the sensor mast is inserted into the probe body to form the sensor probe.

Claim 24 (new). The wireless sensor probe of claim 23 further comprising a first gasket positioned on the outside perimeter of the probe body whereby the gasket can improves the stability of the probe body in the ground.

Claim 25 (new). The wireless sensor probe of claim 24, wherein the gasket comprises a ring.

Claim 26 (new). The wireless sensor probe of claim 24, wherein the gasket comprises an angular structure surrounding the outside perimeter of the probe body, the angular structure having a top portion facing the top of the probe body, a bottom portion facing the bottom of the probe body and a side portion having tapered width where the width decreases from the top portion to the bottom portion.

Claim 27 (new). The wireless sensor probe of claim 23, wherein the sensor mast further comprises a second gasket on the outside perimeter of the sensor mast for

anchoring the sensor mast to the inner perimeter of the probe body and for sealing the space between the sensor mast and the inner perimeter of the probe body.

Claim 28 (new). The wireless sensor probe of claim 23, wherein the sensor mast further comprises a battery slot and a PC board for accommodating a processor.

Claim 29 (new). The wireless sensor probe of claim 23, wherein the probe top part comprises a transceiver circuit.

Claim 30 (new). The wireless sensor probe of claim 23, wherein the probe top part comprises a battery slot and a PC board for accommodating a transceiver circuit and a processor.

Claim 31 (new). The wireless sensor probe of claim 23, wherein the probe top part comprises a solar cell panel.

Claim 32 (new). The wireless sensor probe of claim 23, wherein the probe top part comprises an opening for housing a data display.

Claim 33 (new). The wireless sensor probe of claim 32, wherein the data display comprises one of an LED display or an LCD display.

Claim 34 (new). The wireless sensor probe of claim 23, wherein the probe body is configured in a round shape, a hexagon shape, a rectangular shape, a triangular shape, or a cross-beam shape.

Claim 35 (new). The wireless sensor probe of claim 23, wherein the probe body further comprises one or more raised structures protruding out of the probe body for housing the sensor device.

Claim 36 (new):A wireless sensor probe comprising:

a probe body including a void configured to house a sensor mast, the probe body to be inserted partially into the ground;

the probe body comprising one or more protruding structures for housing the sensor device whereby the protruding structures provide improved contact force between the sensor and the soil;

the sensor mast including one or more sensor devices for sensing a soil property surrounding the probe body when the probe body is inserted partially into the ground; and

a probe top part for encapsulating the probe body and the sensor mast, wherein the sensor mast is inserted into the probe body to form the sensor probe.

Claim 37 (new). The wireless sensor probe of claim 36 further comprising a first gasket positioned on the outside perimeter of the probe body whereby the gasket can improves the stability of the probe body in the ground.

Claim 38 (new). The wireless sensor probe of claim 37, wherein the gasket comprises a ring.

Claim 39 (new). The wireless sensor probe of claim 37, wherein the gasket comprises an angular structure surrounding the outside perimeter of the probe body, the angular structure having a top portion facing the top of the probe body, a bottom portion facing the bottom of the probe body and a side portion having tapered width where the width decreases from the top portion to the bottom portion.

Claim 40 (new). The wireless sensor probe of claim 36, wherein the sensor mast further comprises a second gasket on the outside perimeter of the sensor mast for anchoring the sensor mast to the inner perimeter of the probe body and for sealing the space between the sensor mast and the inner perimeter of the probe body.

Claim 41 (new). The wireless sensor probe of claim 36, wherein the sensor mast further comprises a battery slot and a PC board for accommodating a processor.

Claim 42 (new). The wireless sensor probe of claim 36, wherein the probe top part comprises a transceiver circuit.

Claim 43 (new). The wireless sensor probe of claim 36, wherein the probe top part comprises a battery slot and a PC board for accommodating a transceiver circuit and a processor.

Claim 44 (new). The wireless sensor probe of claim 36, wherein the probe top part comprises a solar cell panel.

Claim 45 (new). The wireless sensor probe of claim 36, wherein the probe top part comprises an opening for housing a data display.

Claim 46 (new). The wireless sensor probe of claim 45, wherein the data display comprises one of an LED display or an LCD display.

Claim 47 (new). The wireless sensor probe of claim 36, wherein the probe body is configured in a round shape, a hexagon shape, a rectangular shape, a triangular shape, or a cross-beam shape.